Flow chart 1

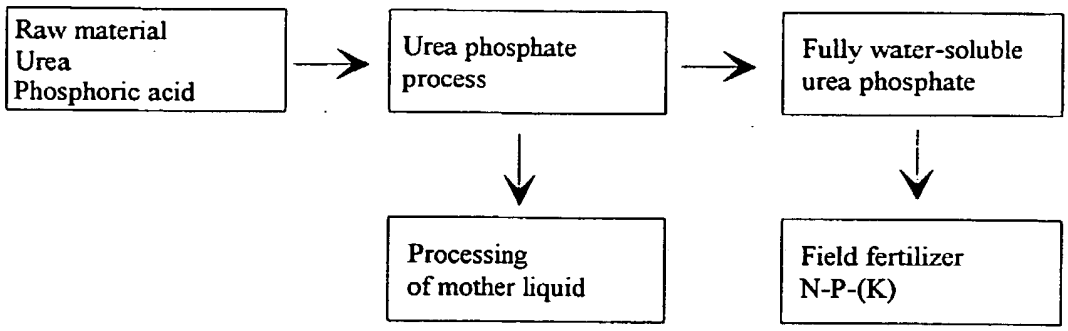

FIG. 1

Flow chart 2

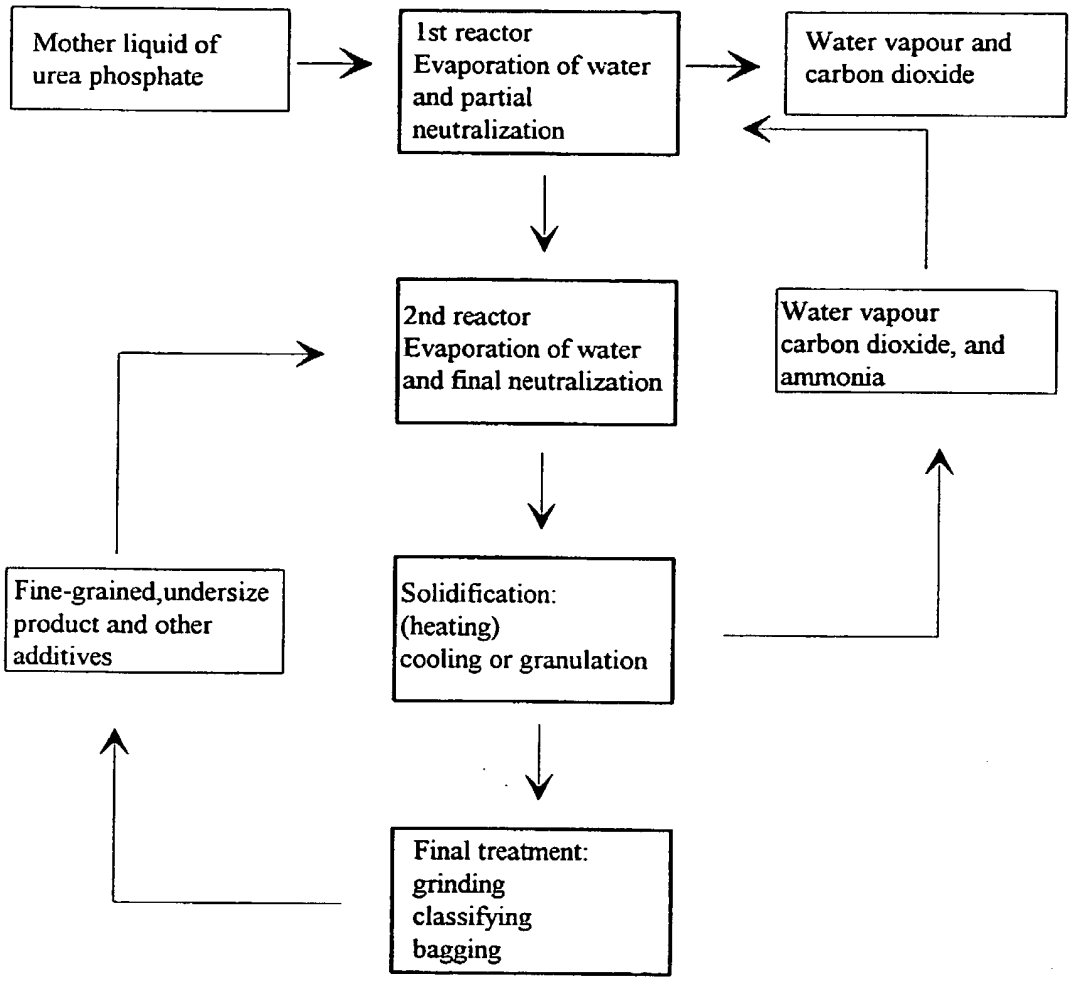

FIG. 2

Table 1 The chemical analyses of the mother liquid

Compound		Mother liquid 1	Mother liquid 2
Urea-N	(w-%)	10.8	11.1
NH_4-N	(w-%)	0.48	1.5
P_2O_5-tot	(w-%)	27.8	27.8
Cl	(w-%)	<0.02	0.02
F	(w-%)	0.87	0.81
Al	(w-%)	0.22	0.35
Cr	(ppm)	8.8	160
Fe	(w-%)	0.88	0.66
Mg	(w-%)	1.8	1.1
S	(w-%)	1.2	1.3
H_2O-KF	(w-%)	26.7	28.2

Drawings

Fig. 1.

Flow chart 1 describes the simultaneous manufacture of urea phosphate and an ammonium phosphate and/or urea ammonium phosphate product.

Fig. 2.

Flow chart 2 describes in detail the manufacture of the ammonium phosphate and/or urea ammonium phosphate product.

The following examples describe in detail the various alternative implementations of the invention without limiting it.

Example 1a

The initial material was urea phosphate mother liquid 2, the chemical analysis of which is presented in Table 1.

The test used a 5-litre overflow reactor that was provided with agitation and jacketing. 5.1kg of mother liquid with a pH of 2.1 as a 10% solution and a water content of 27.4%, and anti-foaming agent Fennodefo 380 were added to the reactor. First, the temperature of the mother liquid was raised to 100 °C. During the first hour, the temperature was further raised to 111 °C. Along with the decomposition of the urea, the pH increased from 2.1 to 2.7. During the second hour, the temperature was kept stable and the pH increased to 5.4. A little water (0.35kg) was added because of excessive evaporation.